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Conclude

dependent protein kinase (Bhat et al. (1996) J. Biol. Chem. 271:32551-32556; and Bartsch, H. et al. (1998) Recent Results Cancer Res. 154:86-96). For example, Bartsch et al. (supra) showed that (+)-anti-benzo[a]pyrene diol-epoxide (BPDE)-DNA adduct levels in bronchial tissues of cigarette smokers with high CYP1A1 inducibility and inactive GSTM1 were approximately 100-fold higher than in smokers with an active GSTM1.

Please replace the paragraph beginning at page 3, line 17, with the following rewritten paragraph:

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The invention additionally provides methods for using a nucleic acid molecule. One method uses the nucleic acid molecule to screen a library of molecules or compounds to identify at least one ligand which specifically binds the nucleic acid molecule and comprises combining the nucleic acid molecule with a library of molecules or compounds under conditions to allow specific binding and detecting specific binding, thereby identifying a ligand which specifically binds the nucleic acid molecule. In this first method, the library is selected from DNA molecules, RNA molecules, peptide nucleic acids (PNAs), mimetics, and proteins; and the ligand identified using the method may be used to modulate the activity of the nucleic acid molecule. A second method uses the nucleic acid molecule to purify a ligand which specifically binds the nucleic acid molecule and comprises combining the nucleic acid molecule with a sample under conditions to allow specific binding, detecting specific binding between the nucleic acid molecule and a ligand, recovering the bound nucleic acid molecule, and separating the nucleic acid molecule from the ligand, thereby obtaining purified ligand. A third method uses the nucleic acid molecule to diagnose a disease or condition associated with the altered expression of a gene that is expressed in response to PAH in a plurality of biological samples and comprises hybridizing a nucleic acid molecule to a sample under conditions to form one or more hybridization complexes, detecting the hybridization complexes, and comparing the levels of the hybridization complexes with the level of hybridization complexes in a non-diseased sample, wherein the altered level of hybridization complexes compared with the level of hybridization complexes of a non-diseased sample indicates the presence of the disease or condition.